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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/689,700 | 10/13/2000 | Debra R. Rolison | 79,854 | 6636 |

7590

12/05/2001

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EXAMINER

BOS, STEVEN J

ART UNIT


PAPER NUMBER

1754

DATE MAILED: 12/05/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|--------------------------------------|--------------------------------------|---|
| Application No. 09/689,700 | Applicant(s) Rolison et al | |
| Examiner Steven Bos | Art Unit 1754 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - a) ☐ All b) ☐ Some* c) ☐ None of:
 - 1. ☐ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "high surface area" is indefinite as to the metes and bounds of this phrase.

In claim 1, "nanoscale" is indefinite as to what dimension of the manganese oxide material is considered to be nanoscale.

In claim 1, "substantially absent" is indefinite as to the metes and bounds of this phrase.

In claim 1, line 4, "said material" is indefinite as to which material this is referring to, the mesoporous manganese oxide material or the gel of manganese oxide material.

In claim 4, "using KMnO_4 " is indefinite as to how it is used; --with KMnO_4 -- is suggested.

In claim 5, "using NaMnO_4 " is indefinite as to how it is used; --with NaMnO_4 -- is suggested.

In claim 6, "such as" is indefinite.

In claim 7, "other hydrocarbons" is indefinite.

In claims 14-17, "said manganese oxide materials" lack(s) proper antecedent basis in the claim(s).

In claims 18,20, "form" is indefinite and superfluous.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4,6-11,14-21 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Long, et al.. See pg. 453.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,13,16,17,20,21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dasgupta '952.

Dasgupta teaches the instantly claimed process which would appear to form the instantly claimed aerogel manganese oxide product (see col. 4, Example). The taught supercritical carbon dioxide treatment would appear to meet the instantly claimed "removing pore fluid ... substantially absent" step.

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Where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct, In re Brown, 173 USPQ 685, In re Fessmann, 180 USPQ 324, In re Spada, 15 USPQ2d 1655, In re Fitzgerald, 205 USPQ 594, and MPEP 2113.

Claims 14,15,18,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Passerini et al.(1999) instantly cited on pg. 6 of the specification.

Passerini teaches manganese oxide ambigels which appear to be identical to those instantly claimed.

Where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct, In re Brown, 173 USPQ 685, In re Fessmann, 180 USPQ 324, In re Spada, 15 USPQ2d 1655, In re Fitzgerald, 205 USPQ 594, and MPEP 2113.

Claims 5,12 appear allowable over the cited prior art of record.

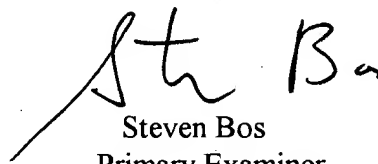
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is (703) 308-2537. The examiner is on the increased flexitime program schedule. The FAX No. for After Final amendments is 703-872-9311; for all others it is 703-872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read "St Bos", with a long horizontal line extending to the left.

Steven Bos
Primary Examiner
Art Unit 1754